



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

52

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/683,200

11/30/2001

Allan MacLean

D/A1655

3231

25453

7590

05/25/2005

EXAMINER

LUDWIG, MATTHEW J

PATENT DOCUMENTATION CENTER

XEROX CORPORATION

100 CLINTON AVE., SOUTH, XEROX SQUARE, 20TH FLOOR  
ROCHESTER, NY 14644

ART UNIT

PAPER NUMBER

2178

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/683,200

**Applicant(s)**

MACLEAN ET AL.

**Examiner**

Matthew J. Ludwig

**Art Unit**

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/18/02.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is in response to the application filed November, 30, 2001.
2. Claims 1-20 are pending in the case. Claims 1, 18, and 20, are independent claims.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**In reference to dependent claim 2**, the limitation recites the phrase "command data". There is insufficient antecedent basis for this limitation in the claim. It is unclear to the Examiner whether the applicant is referring to the signal data or the image data. The phrase "command data" could not be found within the independent claim. Appropriate correction required.

#### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2178

6. **Claims 1, 2, 3, 7, 10, 11-17, and 18-20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hou, USPN 6,546,152 filed (5/4/200) in view of Telle, USPN 5,555,099 filed (9/10/96).**

**In reference to independent claim 1, Hou teaches:**

The operation of the camera is to take a snapshot upon an activation of a key accessible by the user. The image signals or data are transported to circuit board. Circuit board comprises a processor that controls the operations of circuitry and memory (compare to “*a memory for recording image data of a rendered hardcopy document*”). See column 3, lines 15-23.

The display screen on the camera takes a snapshot of a local area of document to maintain a high resolution (compare to “*a display screen*”). See column 3, lines 60-67. It is understood that circuit board can be integrated within camera when camera is a handheld device. Any handheld device is known to have a display device.

When a signal arrives to indicate the end of generating the series of the images, the image generated from processes is the resultant scanned image of the document and may be readout, transported and even transmitted to a secondary device such as storage, printer, or a processor. The reference provides a suggestion of the connectivity between a processing device and the screen of a PDA device with a display screen (compare to “*a processing device coupled to the display screen*”). See column 5, lines 28-40.

When it is found that either the two images or the matched portions in the overlapping area of both images are registered, the two images are simply averaged, resulting in an SNR enhanced image (compare to “*an input device for recording signal data, the input device*”).

*communicating the signal data to the processing device; the signal data representing at least a portion of the hardcopy document*"). See column 5, lines 10-16.

When the processing module is executed by processor, the processing module is caused to first store a very first image from a series of images being generated into RAM and start the process flow (compare to "*identifying the image data in the signal data using the memory*"). See column 5, lines 50-67.

The reference fails to describe a document with annotations in the signal data by comparing the image data with signal data; however, Telle discloses a means for the identification of annotations through a buffer memory. Signal data is utilized to provide the annotation to the image data for improved archiving of hardcopy documents. See column 4, lines 24-67. It would have been obvious to one of ordinary skill in the art, having the teachings of Hou and Telle before him at the time the invention was made, to modify the signals processed in memory and insert annotation data for archiving document data through signal processing.

**In reference to dependent claim 2, Hou teaches:**

When it is found that either the two images or the matched portions in the overlapping area of both images are registered, the two images are simply averaged, resulting in an enhanced image. When it is found that the two images are not registered precisely, an enlarged image is created by combining the two images constrained to the overlapping area. See column 5, lines 25-35.

**In reference to dependent claim 3, Hou teaches:**

The camera is an image-capturing device that includes a two-dimensional image sensor and possibly an illumination source projecting light onto a document. See column 3, lines 10-15.

Art Unit: 2178

**In reference to dependent claim 7, Hou teaches:**

When the processing module is executed by processor, the processing module is caused to first store a very first image from a series of images being generated into RAM and start the process flow (compare to “*identifying the image data in the signal data using the memory*”). See column 5, lines 50-67.

The reference fails to describe a document with annotations in the signal data by comparing the image data with signal data; however, Telle discloses a means for the identification of annotations through a buffer memory. Signal data is utilized to provide the annotation to the image data for improved archiving of hardcopy documents. See column 4, lines 24-67. It would have been obvious to one of ordinary skill in the art, having the teachings of Hou and Telle before him at the time the invention was made, to modify the signals processed in memory and insert annotation data for archiving document data through signal processing

**In reference to dependent claim 10, Hou teaches:**

When the processing module is executed by processor, the processing module is caused to first store a very first image from a series of images being generated into RAM and start the process flow. See column 5, lines 50-67. The reference fails to describe a document with annotations in the signal data by comparing the image data with signal data; however, Telle discloses a means for the identification of annotations through a buffer memory. Signal data is utilized to provide the annotation to the image data for improved archiving of hardcopy documents. See column 4, lines 24-67. It would have been obvious to one of ordinary skill in the art, having the teachings of Hou and Telle before him at the time the invention was made, to

Art Unit: 2178

modify the signals processed in memory and insert annotation data for archiving document data through signal processing.

**In reference to dependent claim 11-17**, the limitations recite similar instructions used for performing the system claims, numbered 2, 3, 7, and 10, and in further view of the following, are rejected along the same rationale.

**In reference to claims 18-20**, the claims reflect the method comprising instructions used for performing the system claims, numbered 1, 2, 3, 7, and 10, and in further view of the following, are rejected along the same rationale.

**7. Claims 4-6, 8, 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Hou in view of Telle and further in view of Wolff UK Patent Application No. 2,306,669 filed (10/30/96).**

**In reference to dependent claim 4**, Hou teaches:

An image-capturing device that includes a two-dimensional image sensor and possibly an illumination source projecting light onto the document. Examples of camera may include, but not limited to, a handheld device having an imaging capability. The reference does not explicitly state the utilization of a stylus; however, Wolff discloses a stylus and a base unit for electronically processing and storing data received from the pen-instrument, including processing and conditioning electronics and optical graphic screen display. See Wolff, page 17-21.

It would have been obvious to one of ordinary skill in the art, having the teachings of Hou and Wolff before him at the time the invention was made, to modify the image capturing

device taught by Hou to include the stylus of Wolff, because it would have given the user the added benefit of having a stylus to read pre-printed bar code information and supporting a general manual entry interactive paper/electronic document handling system.

**In reference to dependent claim 5, Hou teaches:**

An image-capturing device that includes a two-dimensional image sensor and possibly an illumination source projecting light onto the document. Examples of camera may include, but not limited to, a handheld device having an imaging capability. The reference does not explicitly state the utilization of a stylus, which comprises an embedded camera and a transmitter that communicates signals from the camera to the processing device; however, Wolff discloses a stylus and a base unit for electronically processing and storing data received from the pen-instrument, including processing and conditioning electronics and optical graphic screen display. See Wolff, page 17-21.

A charge-coupled-device optical scanning transducer is used for reading reflected light variations from a scanned portion of the CB page covered by the CCD array. The base unit communicates with the pen instrument receiving sensor signals. Furthermore, it processes the sensor signals, and drives any feedback device such as its display unit. See Wolf, page 20-23.

**In reference to dependent claim 6, Hou teaches:**

An image-capturing device that includes a two-dimensional image sensor and possibly an illumination source projecting light onto the document. Examples of camera may include, but not limited to, a handheld device having an imaging capability. The reference does not explicitly state the utilization of a stylus that includes an accelerometer for recording gestures; however, Wolff discloses a stylus and a base unit for electronically processing and storing data received



Art Unit: 2178

from the pen-instrument, including processing and conditioning electronics and optical graphic screen display. See Wolff, page 17-21. More importantly, Wolff states that accelerometers may also be used for position sensors by double integration of the acceleration signals. See Wolff, page 18.

**In reference to dependent claim 8 and 9, Hou teaches:**

An image-capturing device that includes a two-dimensional image sensor and possibly an illumination source projecting light onto the document. Examples of camera may include, but not limited to, a handheld device having an imaging capability. The reference does not explicitly state the utilization of a stylus; however, Wolff discloses a stylus and a base unit for electronically processing and storing data received from the pen-instrument, including processing and conditioning electronics and optical graphic screen display. Furthermore, the reference discloses a writing instrument that is to be conveniently held and used for writing on a page as shown in figure 6. See Wolff, page 17-21.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Squilla et al.,                      USPN 6,288,719                      filed (10/26/1998)

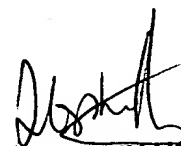
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Ludwig whose telephone number is 571-272-4127. The examiner can normally be reached on 8:00am-5:00pm.

Art Unit: 2178

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML  
May 6, 2005

  
**STEPHEN HONG**  
**SUPERVISORY PATENT EXAMINER**